

Interactive comment on “Focal mechanisms in the Southern Aegean from temporary seismic networks – implications for the regional stress field and ongoing deformation processes” by W. Friederich et al.

Anonymous Referee #1

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The paper is generally well written and its topic is appropriate for publication in Solid Earth. The science, the English and the writing style of the manuscript is good.

The south Aegean region has been studied for several decades by many different authors using a seismic data base that had been systematically improved over the years. However, high-resolution regional seismicity data set had not been acquired in the past giving most of the previous studies a more local character (or provided limited resolution). Due to the effort within the recent Egelados project – a regional seismic network covering all of the south Aegean region at once- with many different institutions being

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involved this task has now been successfully achieved and the authors make use of this exceptional data base to study the seismotectonic setting of the entire south Aegean region.

While the authors apply standard state-of-the-art processing and evaluation techniques and carefully discuss the limits of the obtained results (e.g. precision of the stress field orientations), the main improvement of this study in the light of earlier papers dealing with this region is that the spatiotemporal occurrence of seismicity throughout the Hellenic Subduction Zone and information on the spatial variations of the crustal and slab-related stress field could be determined for several areas for the first time. Nevertheless, the authors related their findings to the respective key-papers for the particular areas already studied previously.

In summary, I think that this paper defines a new standard on the kinematics of the study region obtained from earthquake recordings and certainly will be followed by more studies using the Egelados data base. In that respect I would encourage the authors to also include a statement on whether the earthquake waveform data base is available to the community.

I recommend to accept the paper with no further corrections ('print as it stands').

Interactive comment on Solid Earth Discuss., 5, 1721, 2013.

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